

# Panama City Trawling Survey

## Methods

1999-2001 – 10 trawls were made within the SAB seagrass bed (see Figure 1) approximately 3 times per week from June through October to sample for grouper and snapper density.

2002-2009 & 2011 - Five seagrass beds (SAB, CSS, BCH, RED, and SS) within St. Andrew Bay, FL were chosen for sampling grouper and snapper density and distribution (Figure 1). Locations were selected based on proximity to the Gulf of Mexico pass and on water flow circulation pattern. At each location each week, two to five replicate benthic trawls were made (depending on seagrass bed size) for a total of 16 trawls: 5 trawls at SAB, 3 trawls each at CSS, BCH and SS, and 2 trawls at RED. Seagrass beds were sampled weekly from May to November usually during the morning hours of 0700 and 1200.

### Trawling (all years)

A benthic trawl, made of a 1 m wide, 25 cm high metal frame, and a 2 mm mesh bag (approximately 2.8 m long) sewn to the metal frame, was towed behind a boat for approximately thirty sec to cover a distance of 50 m. A buoy marked the beginning of each station so that the exact distance covered could be measured with a laser range finder at the end of each trawl. The benthic trawl passes over the sediment-water column interface collecting all epibenthic organisms living on or in the seagrass. Seagrass collected by the trawl was mostly dead leaves and was, therefore, not thought to be damaging to the habitat, similar to findings of Meyer et al. (1999) who used a roller trawl. Snapper and groupers were removed from the debris, measured for standard length ( $\pm 1$  mm), and released alive.

### Environmental Variables

Bottom temperature and salinity were measured once at each of the five locations each sampling day using a YSI Model 30.

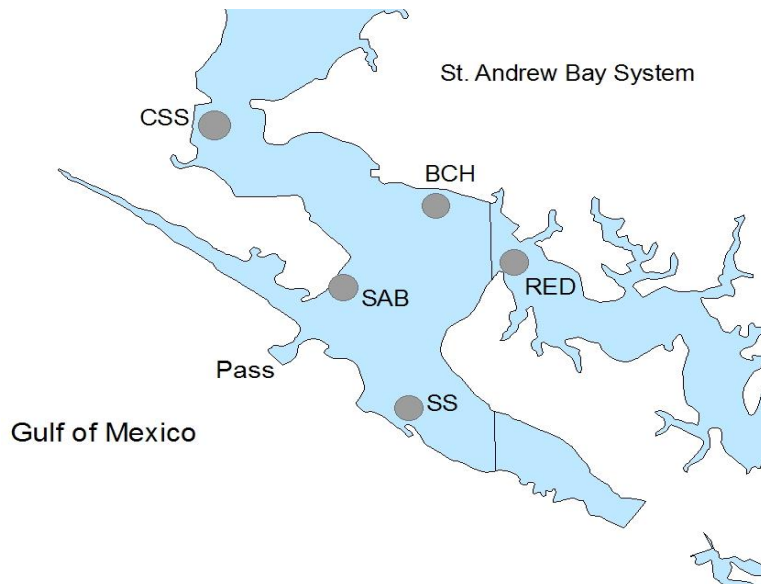


Figure 1. Map of trawling locations within St. Andrew Bay, FL.